

Undergraduate Student Persistence and Completion: Do Pell Grants Matter?

Charles Hatcher, California Competes

CAIR Conference,

Tongshan Chang, University of California Office of the
President

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Motivation

What is the purpose of financial aid?

1. Incent Enrollment

- Boost the Academic Profile of the incoming class
- Promote/Advertise Socioeconomic Diversity

2. Provide Support : \$\$ could increase the likelihood of student success

(1) And (2) are not mutually exclusive,
but they aren't identical either...



Federal Pell Grant Program

- Federal Effort to exclusively provide SUPPORT
 - Financial Aid for College Students with no Bachelor's Degree
 - Can be used at participating (accredited) institutions
 - Attached to Students, not schools

Federal Pell Grant Program

- Pell eligibility and amount based on federally determined Expected Family Contribution (EFC)
 - Amount determined additionally by the cost of attendance
- Maximum Grant is \$5645 per year in 2013-14
- Maximum Duration of Eligibility is the equivalent of 6 years of full-time funding

Federal Pell Grant Program

| Academic Year | Max Pell Award | Average Pell Award (US) | #UC Recipients | UC Pell Revenue (\$MIL) | UC UG Resident Tuition&Fees |
|---------------|----------------|-------------------------|----------------|-------------------------|-----------------------------|
| 2006-2007 | \$4050 | \$2494 | | \$148M | \$6852 |
| 2007-2008 | \$4310 | \$2620 | 50,807 | | \$7517 |
| 2008-2009 | \$4731 | \$2970 | 52,809 | \$191M | \$8027 |
| 2009-2010 | \$5350 | \$3646 | 62,747 | \$269M | \$9896 |
| 2010-2011 | \$5550 | \$4115 | 72,505 | \$317M | \$11,279 |
| 2011-2012 | \$5550 | \$3650 | 75,376 | \$331M | \$13,181 |

Common Factors that lead to student success?

- High School Grades
 - Difficulty of the curriculum
 - Highest level of math completed
- Standardized Test Scores
- Effects depend on race and gender
- Institutional Characteristics and “Match” is important

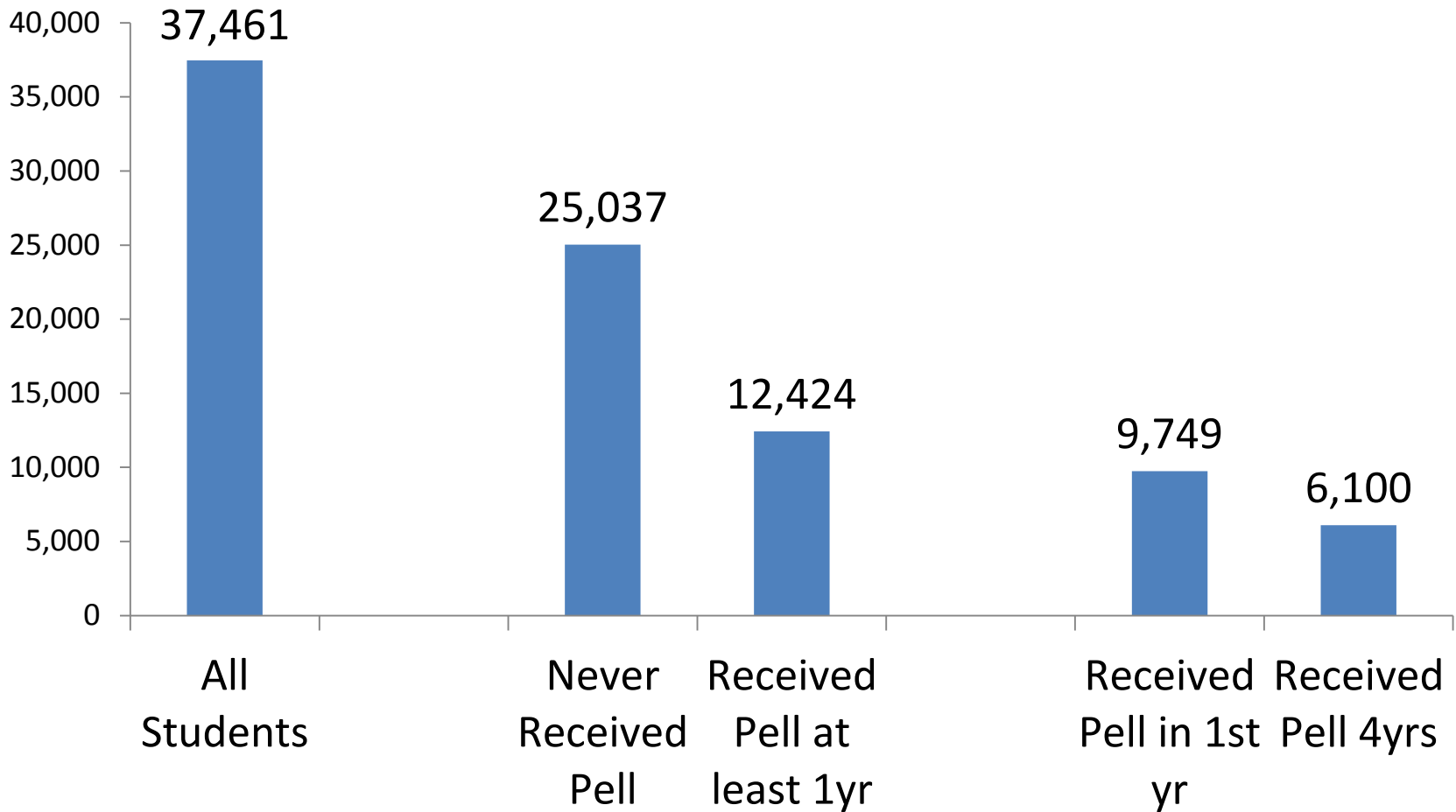
What are the effects of Financial Aid/Pell Grants on Student Success

- Schools that admit more Pell Student tend to have lower graduation rates
- Overall, the literature is mixed with respect to the effect of Pell on Student Success
- Studies which control for other factors of success tend to show a positive relationship between grant aid and success.

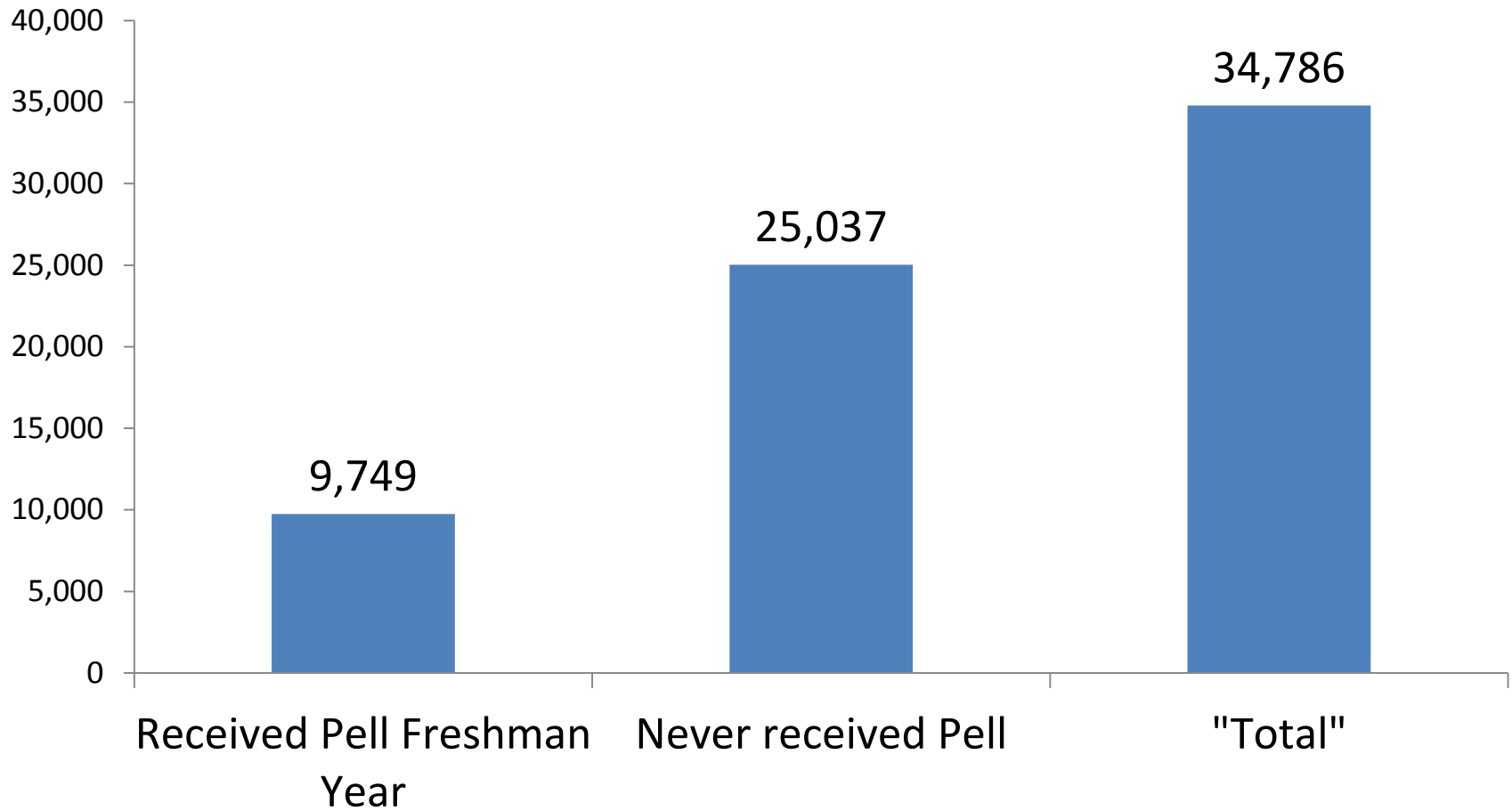
Our Research Questions:

- Who Are Pell Grant Recipients in the First Year?
- Who Receives Pell Grants in ANY of the first 4 years?
- Who Receives Pell Grants in ALL of the first four years?
- What Happens to them?

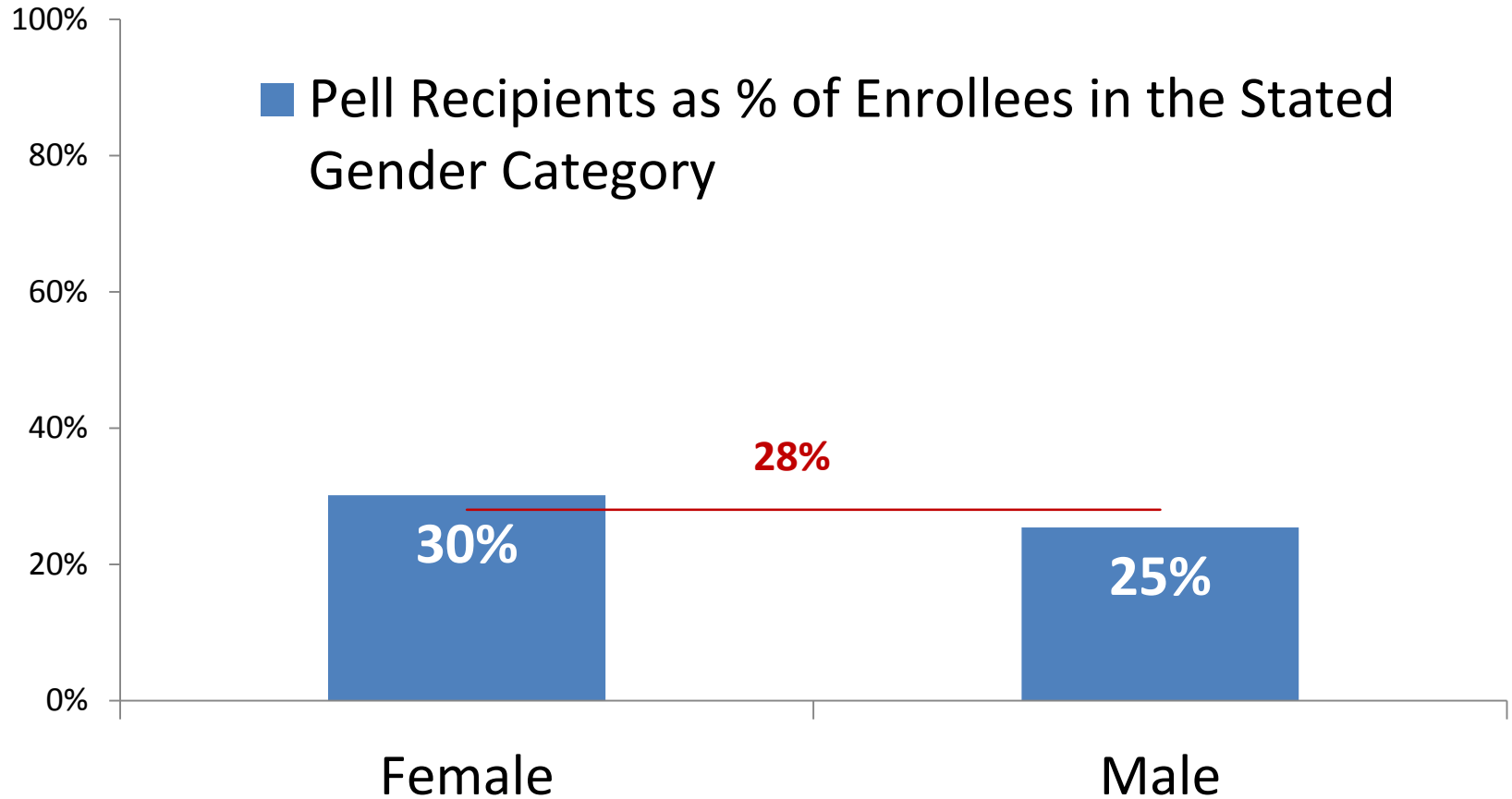
Our Study's Population: The Fall 2006 UC System Freshman Cohort



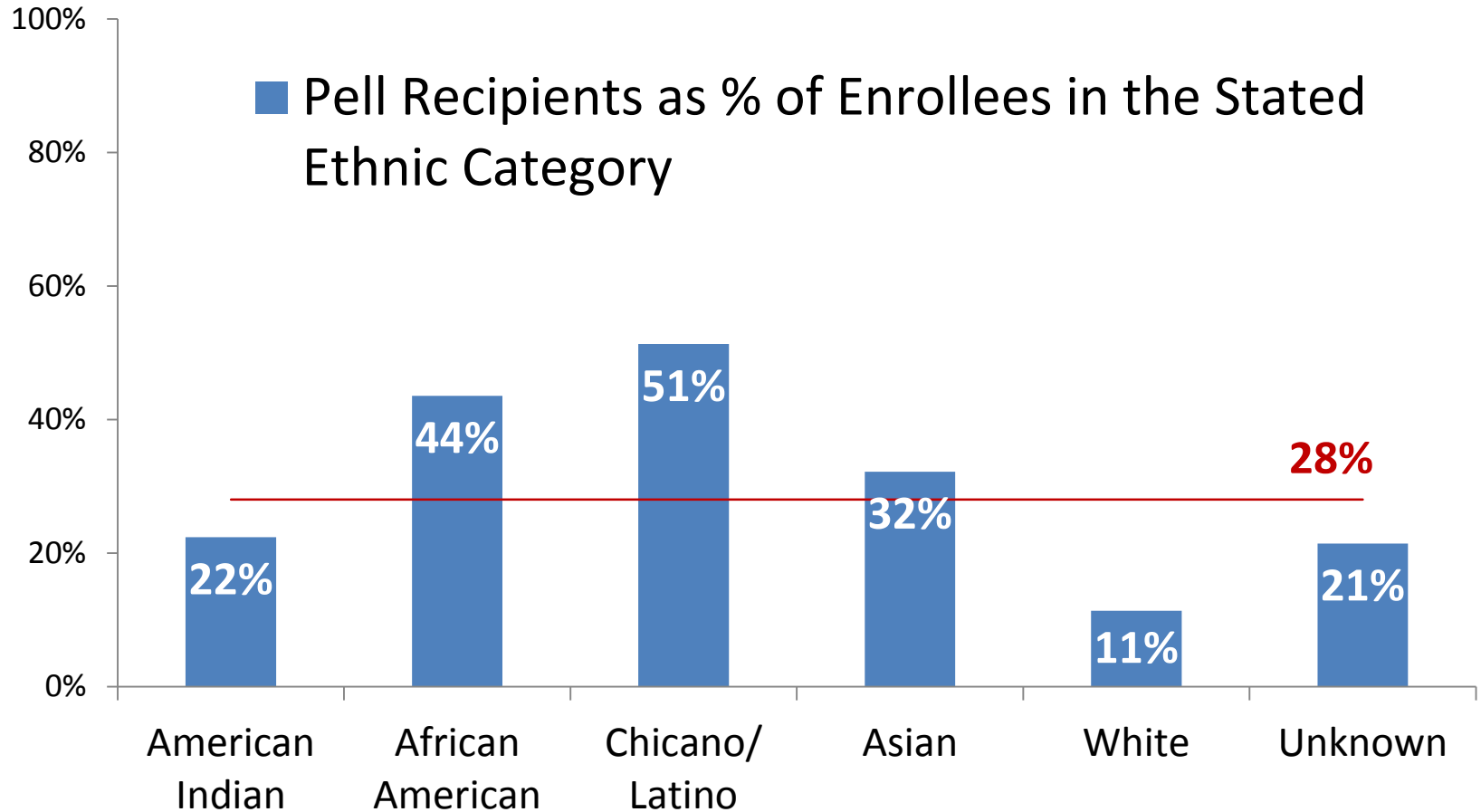
Who Are Pell Grant Recipients in the First Year?



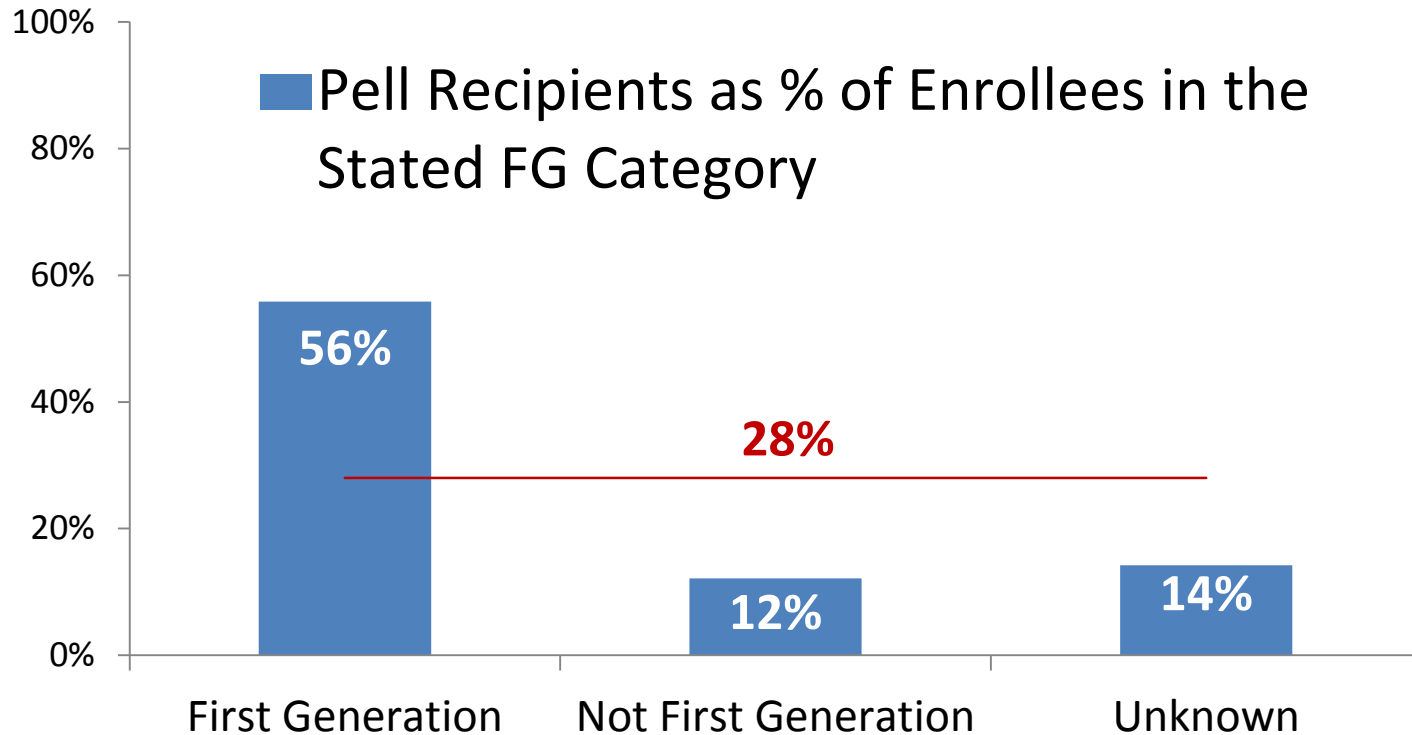
Fall 2006 cohort First-Year Pell students by GENDER



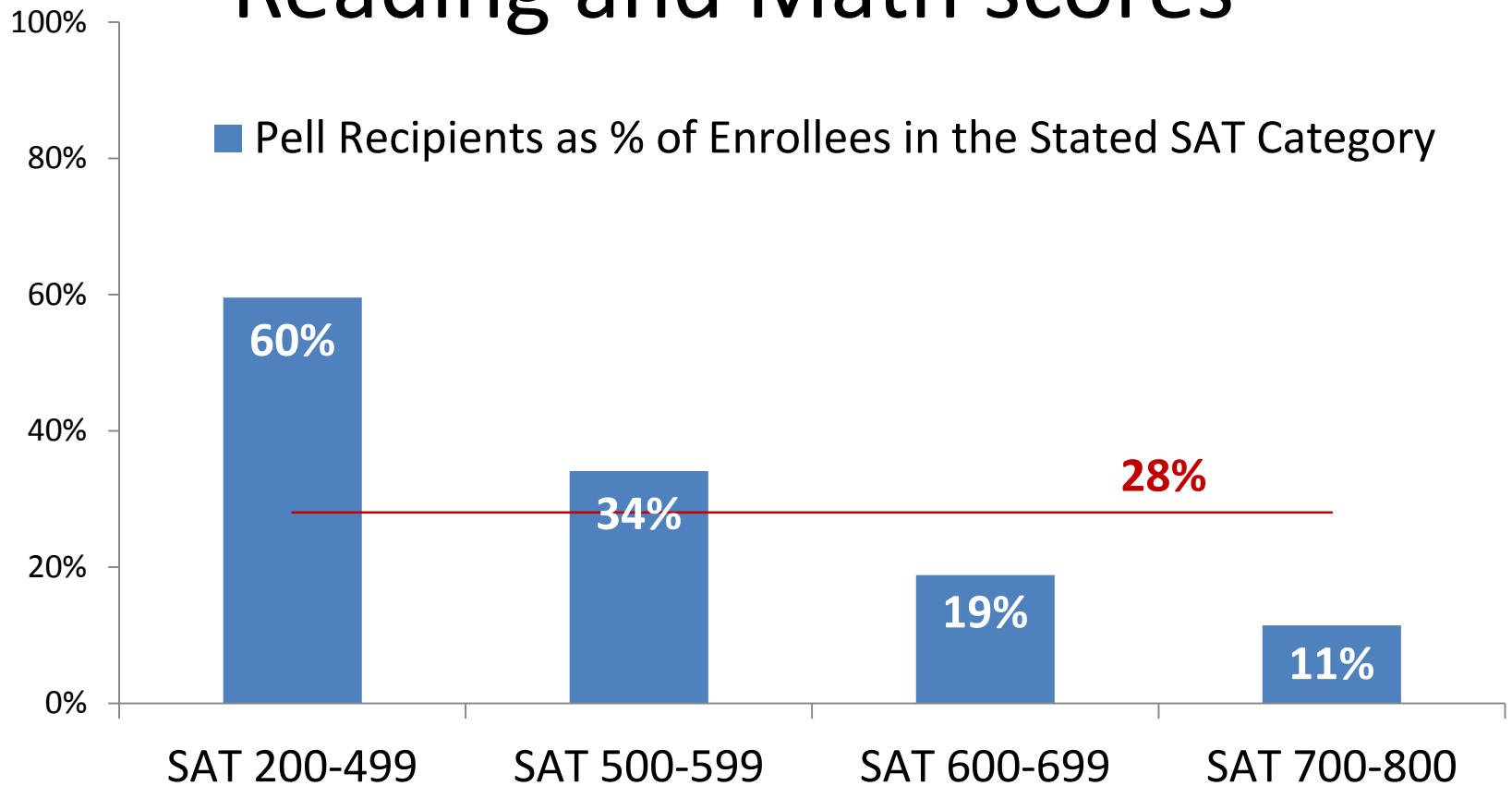
Fall 2006 cohort First-Year Pell students by RACE/ETHNICITY



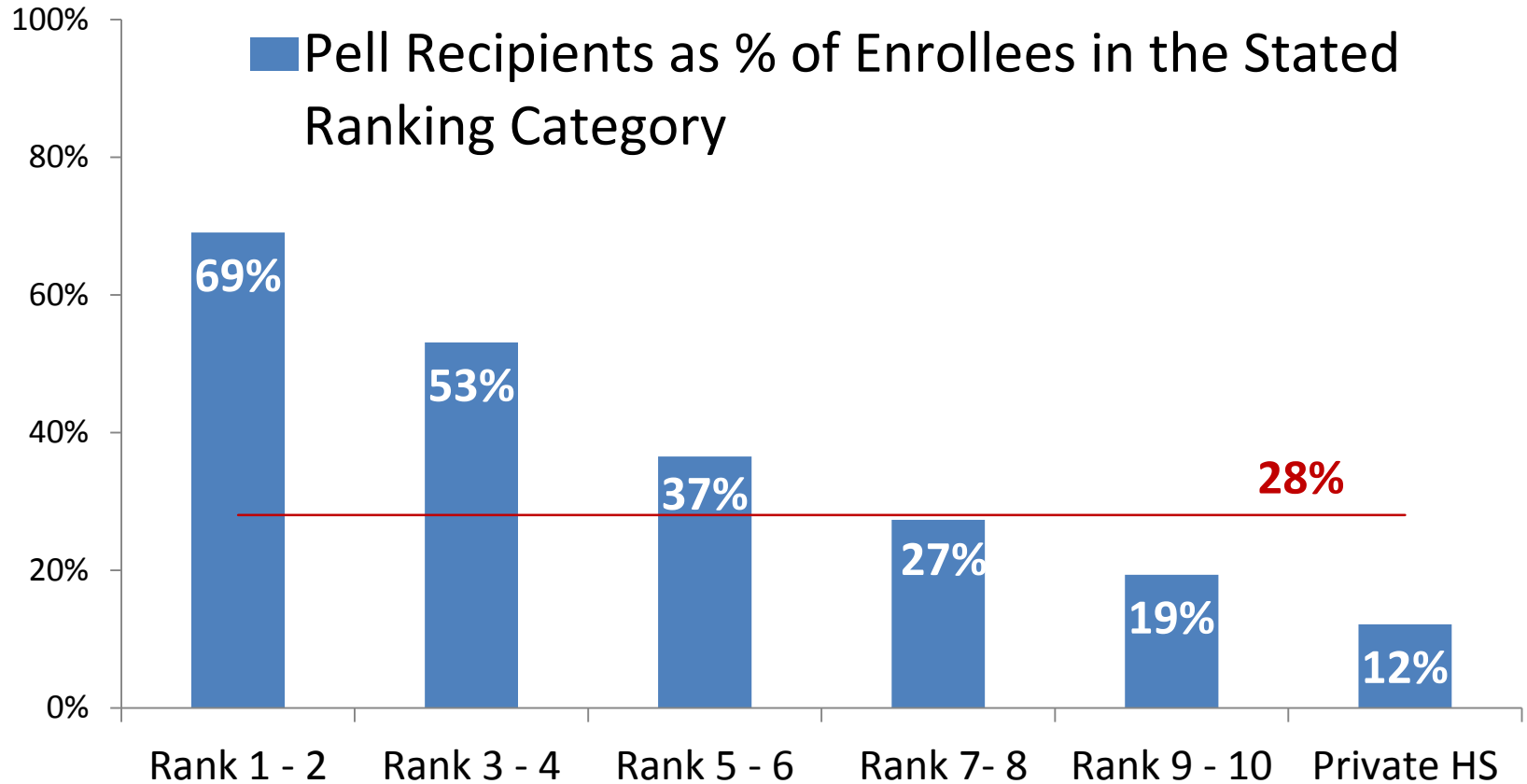
Fall 2006 cohort First-Year Pell students by FIRST-GEN STATUS



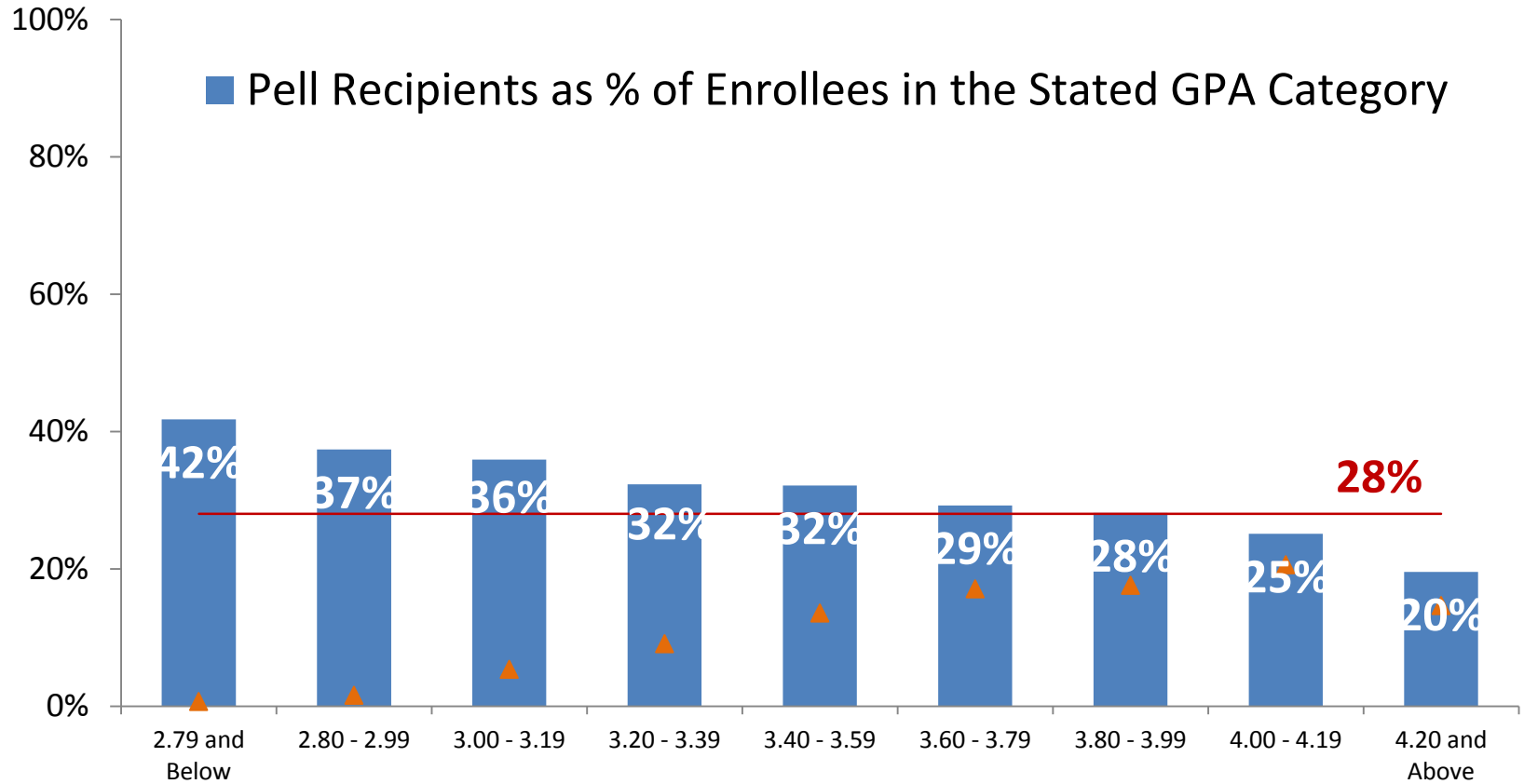
Fall 2006 cohort First-Year Pell students by average SAT Critical Reading and Math scores



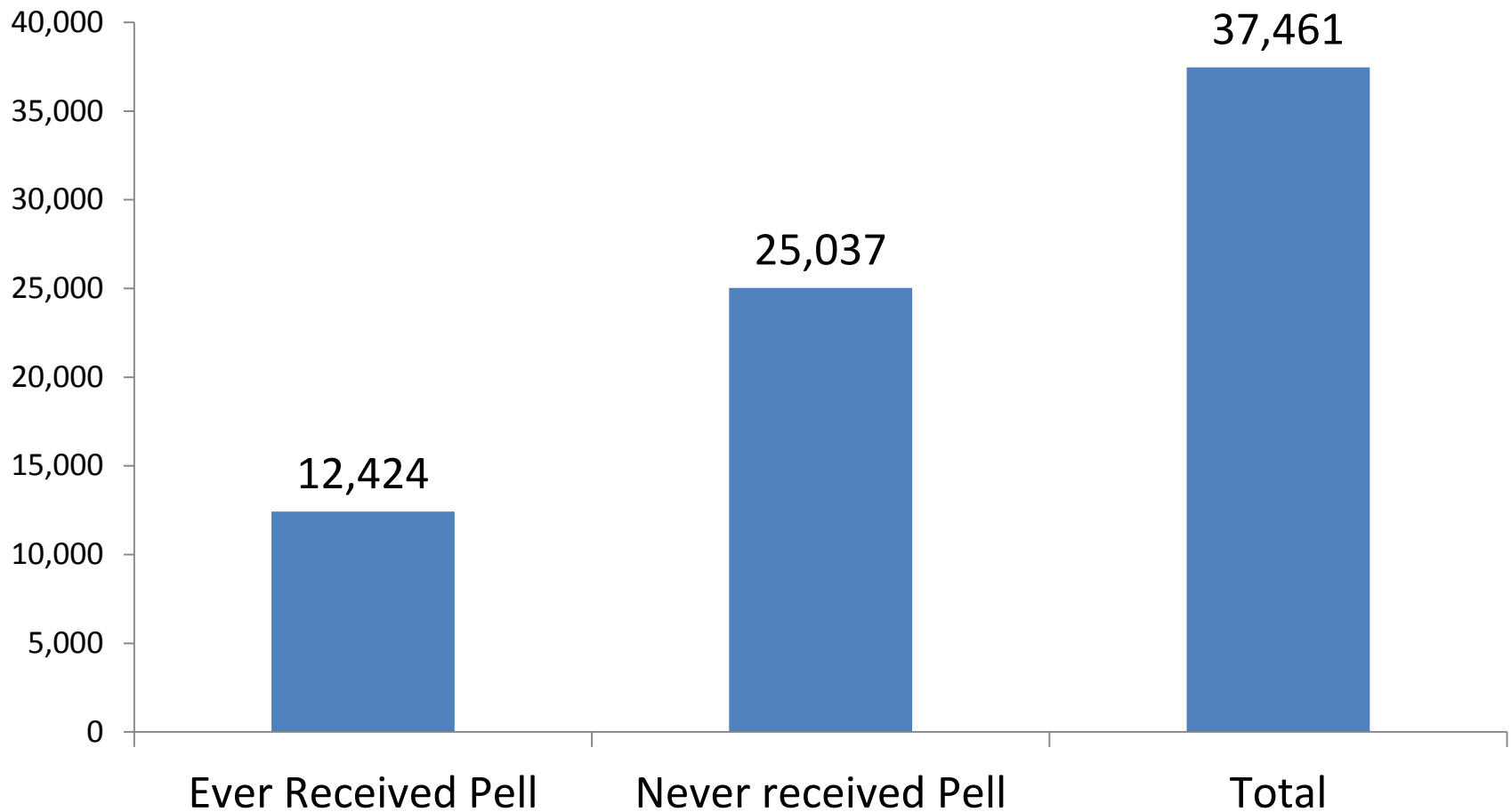
Fall 2006 cohort First-Year Pell students by HS RANK



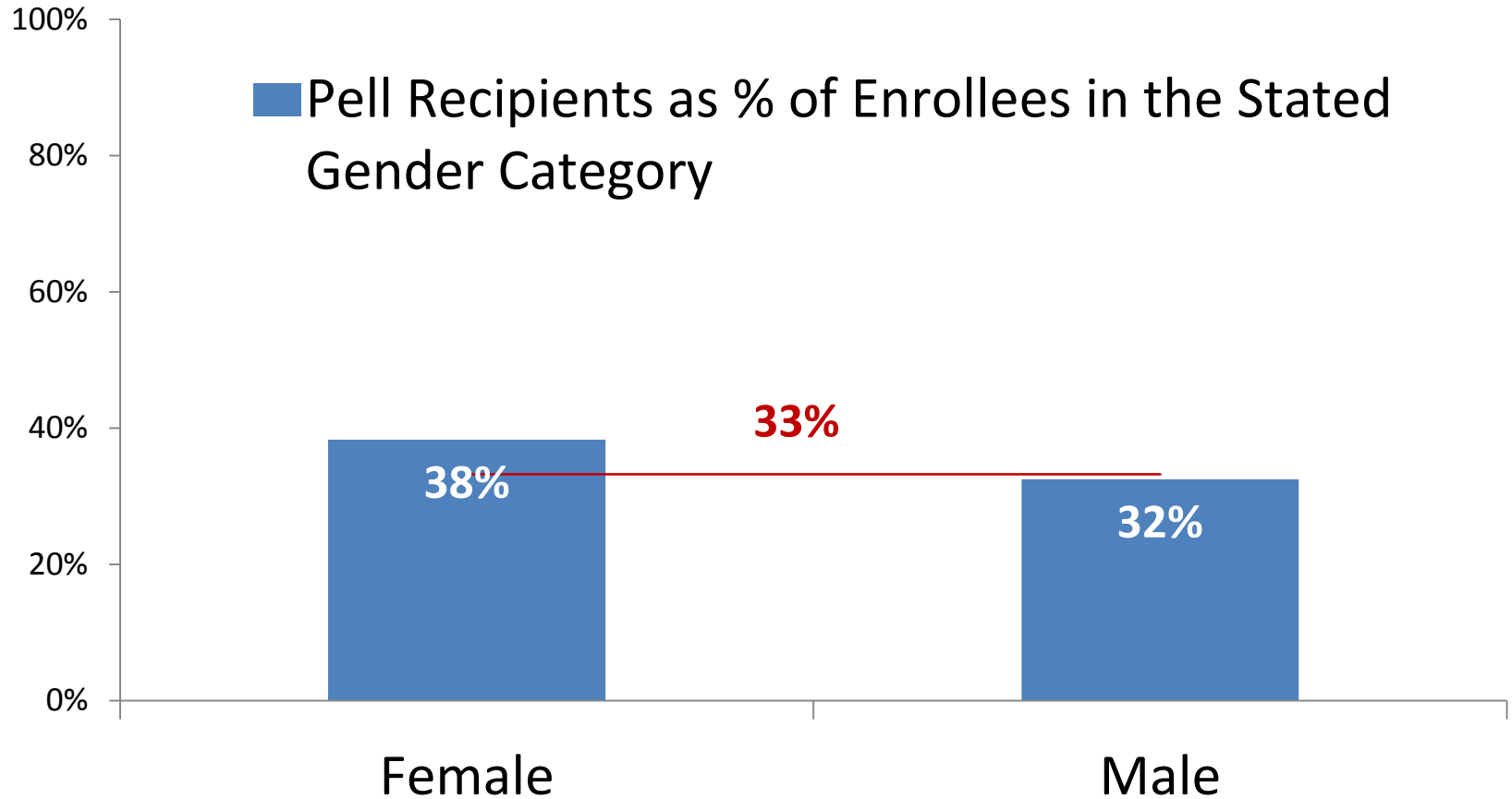
Fall 2006 cohort First-Year Pell students by HS GPA



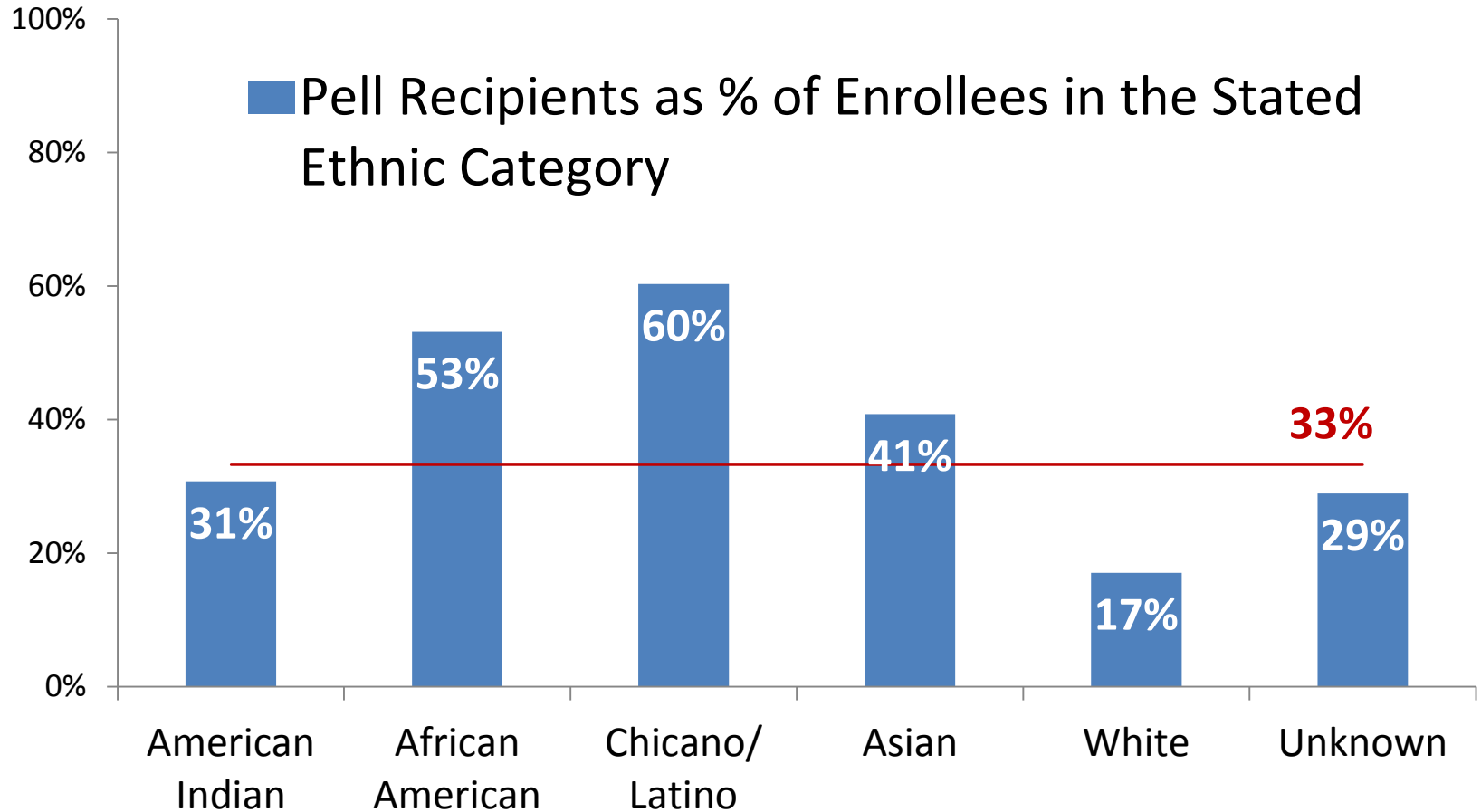
Who Receives Pell Grants in ANY of the first 4 years?



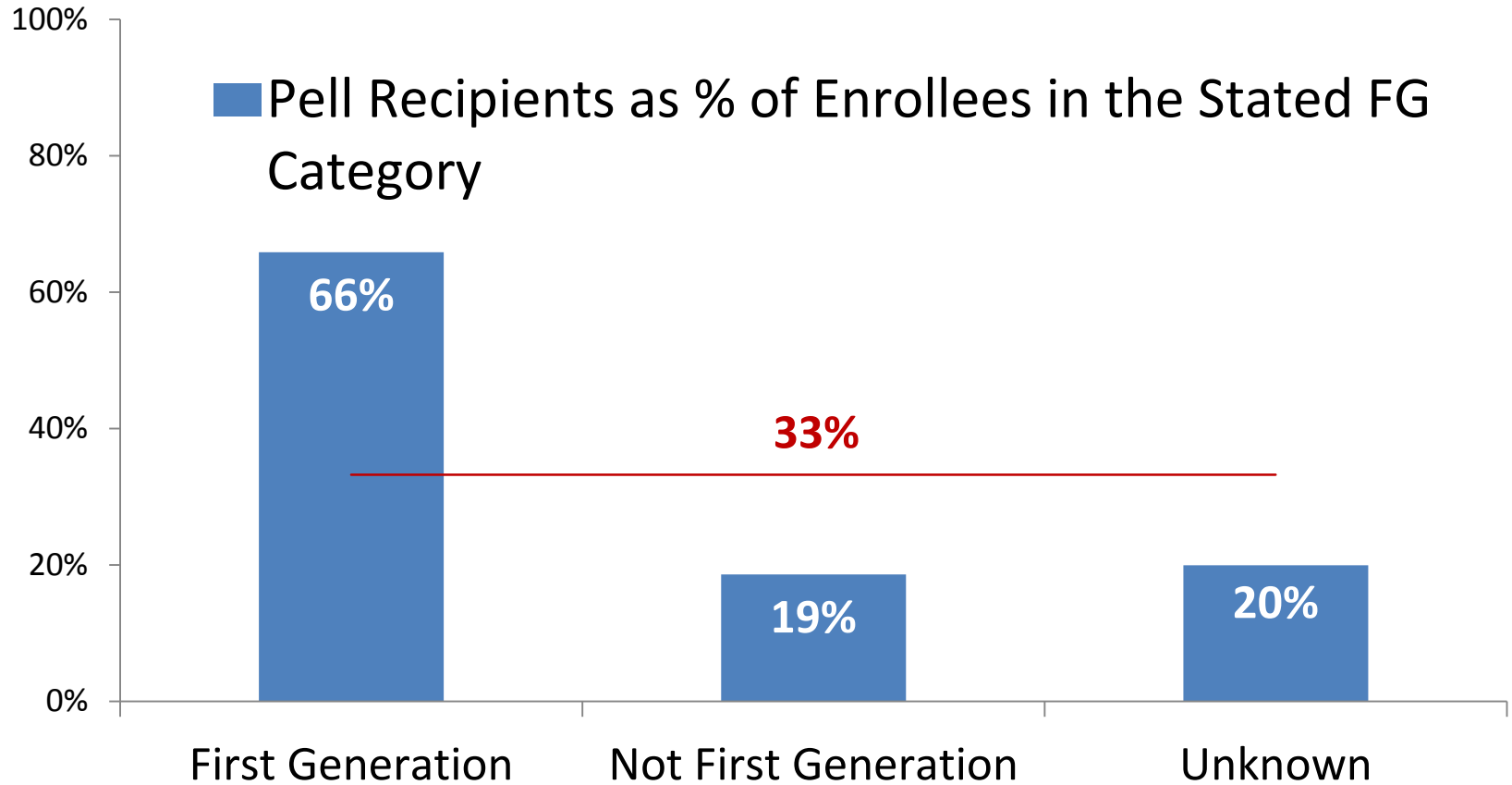
Fall 2006 cohort Ever-Received Pell by GENDER



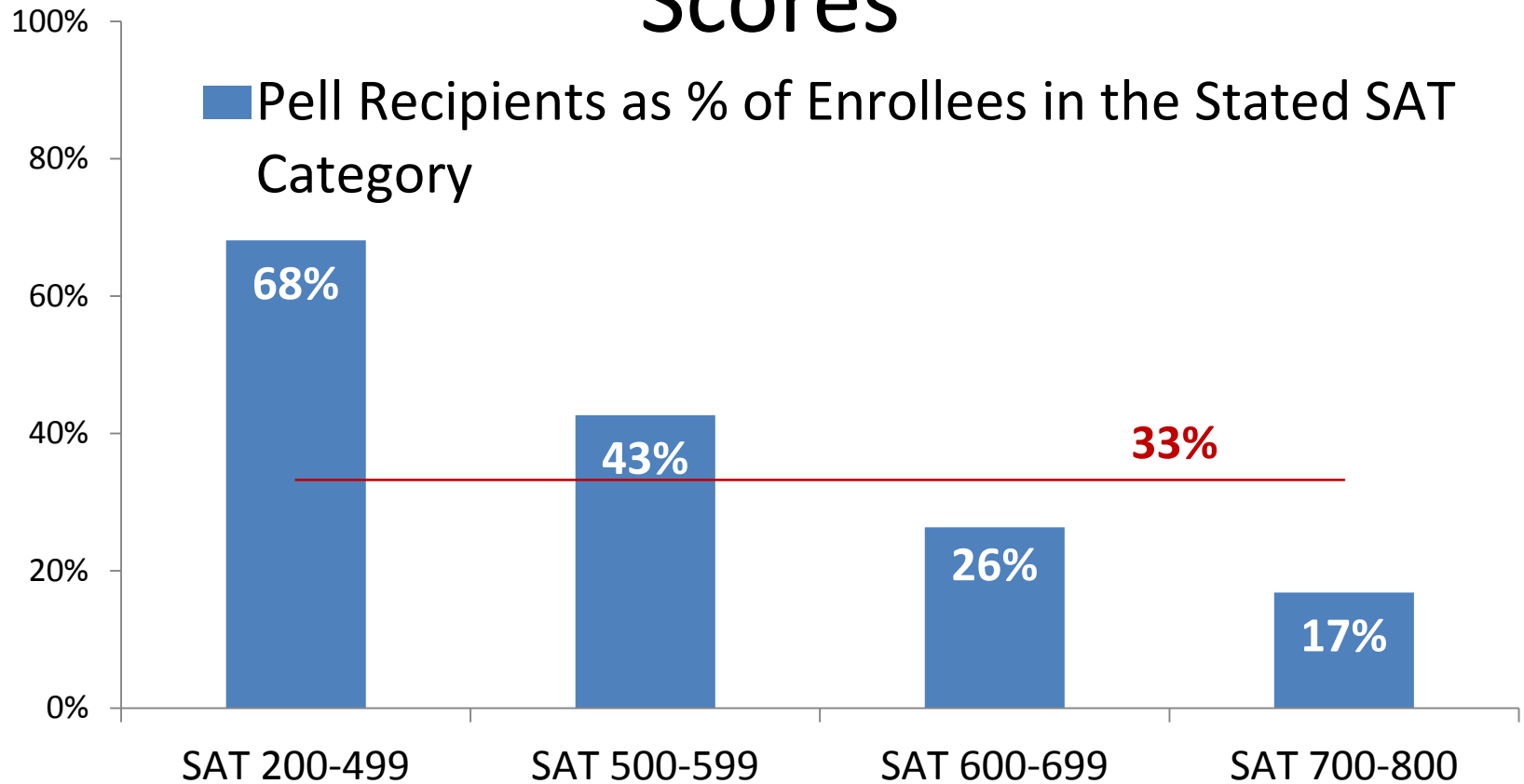
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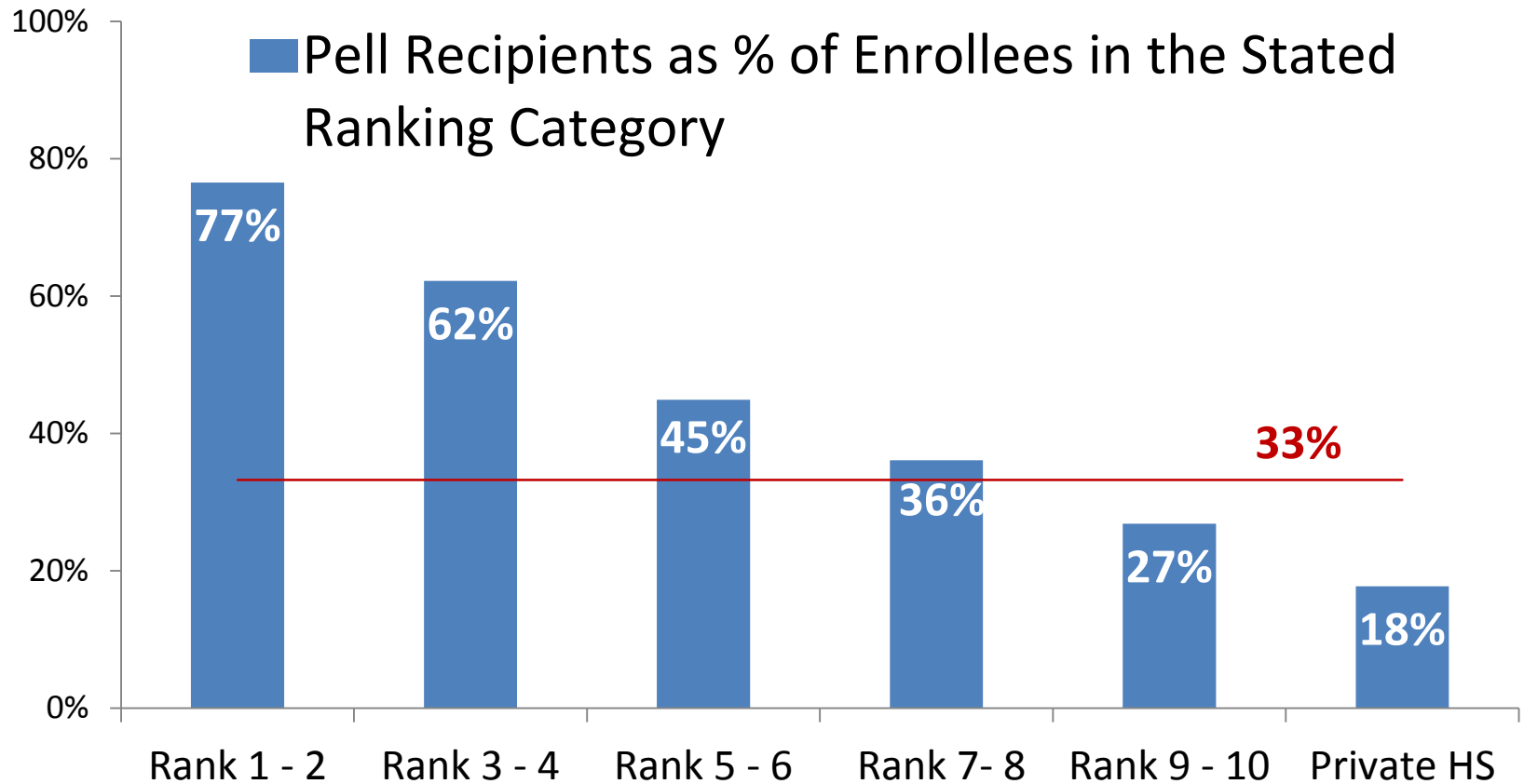
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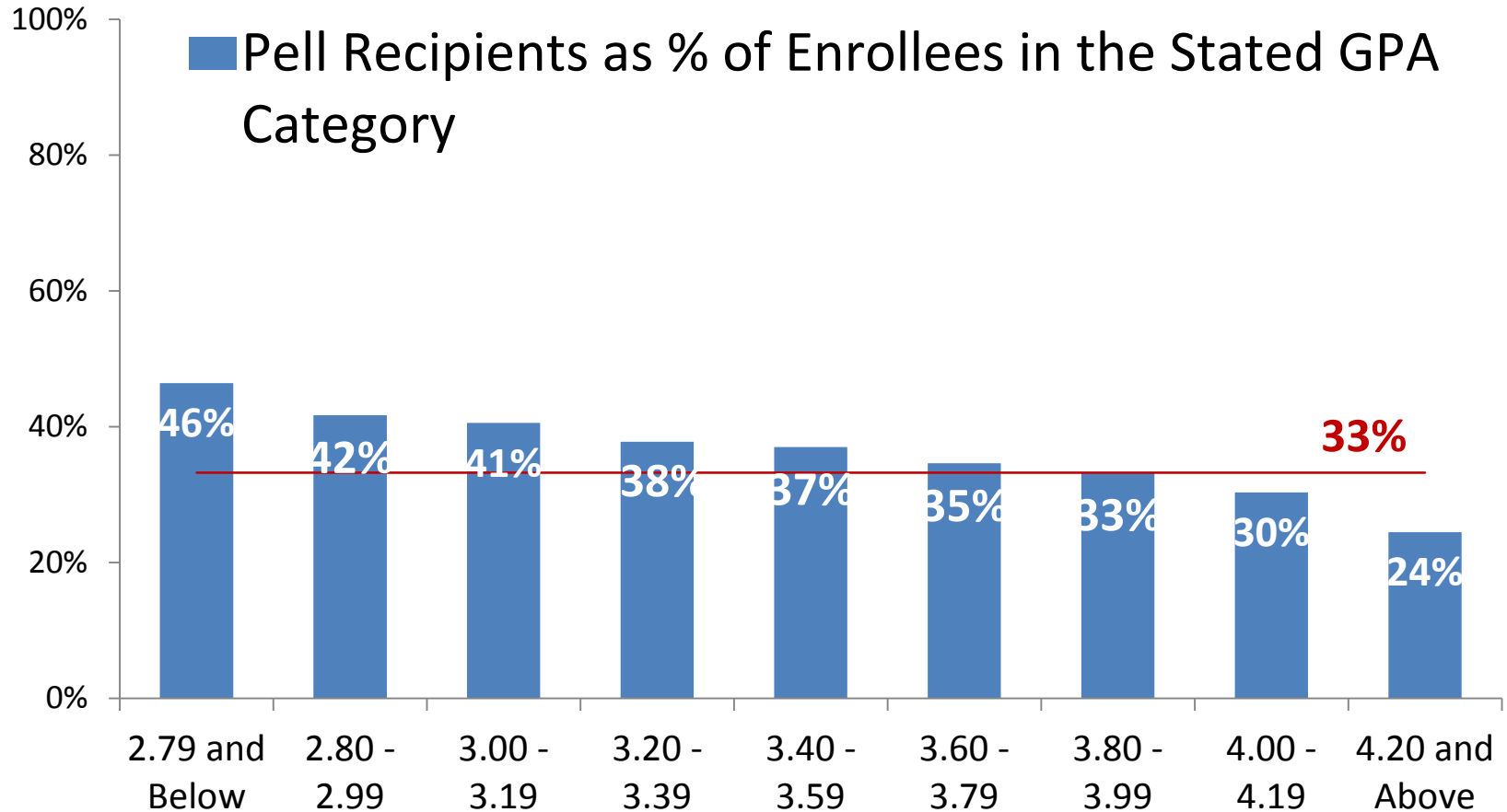
Fall 2006 cohort Ever-Received Pell by average SAT Critical Reading and Math Scores



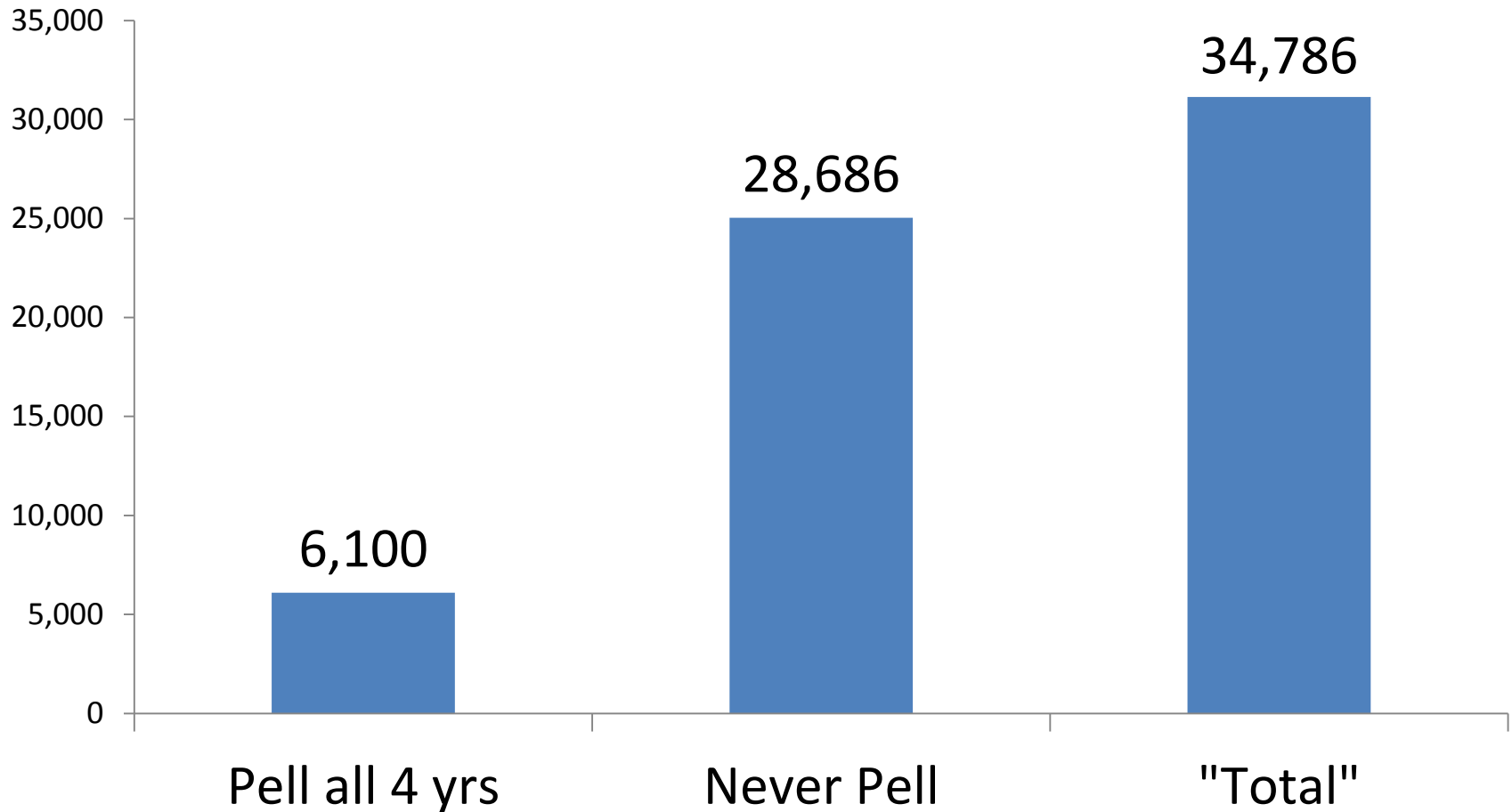
Fall 2006 cohort Ever-Received Pell by H.S. RANK



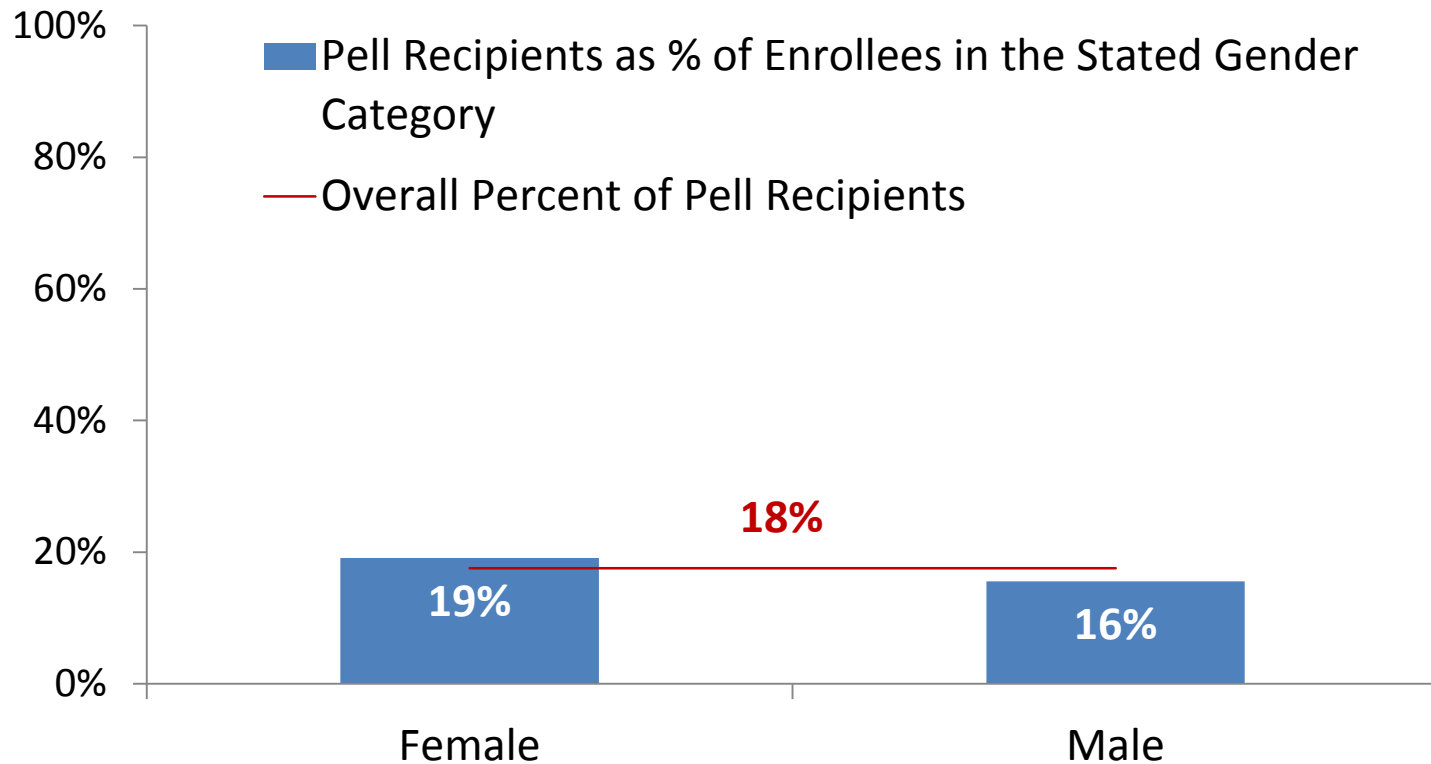
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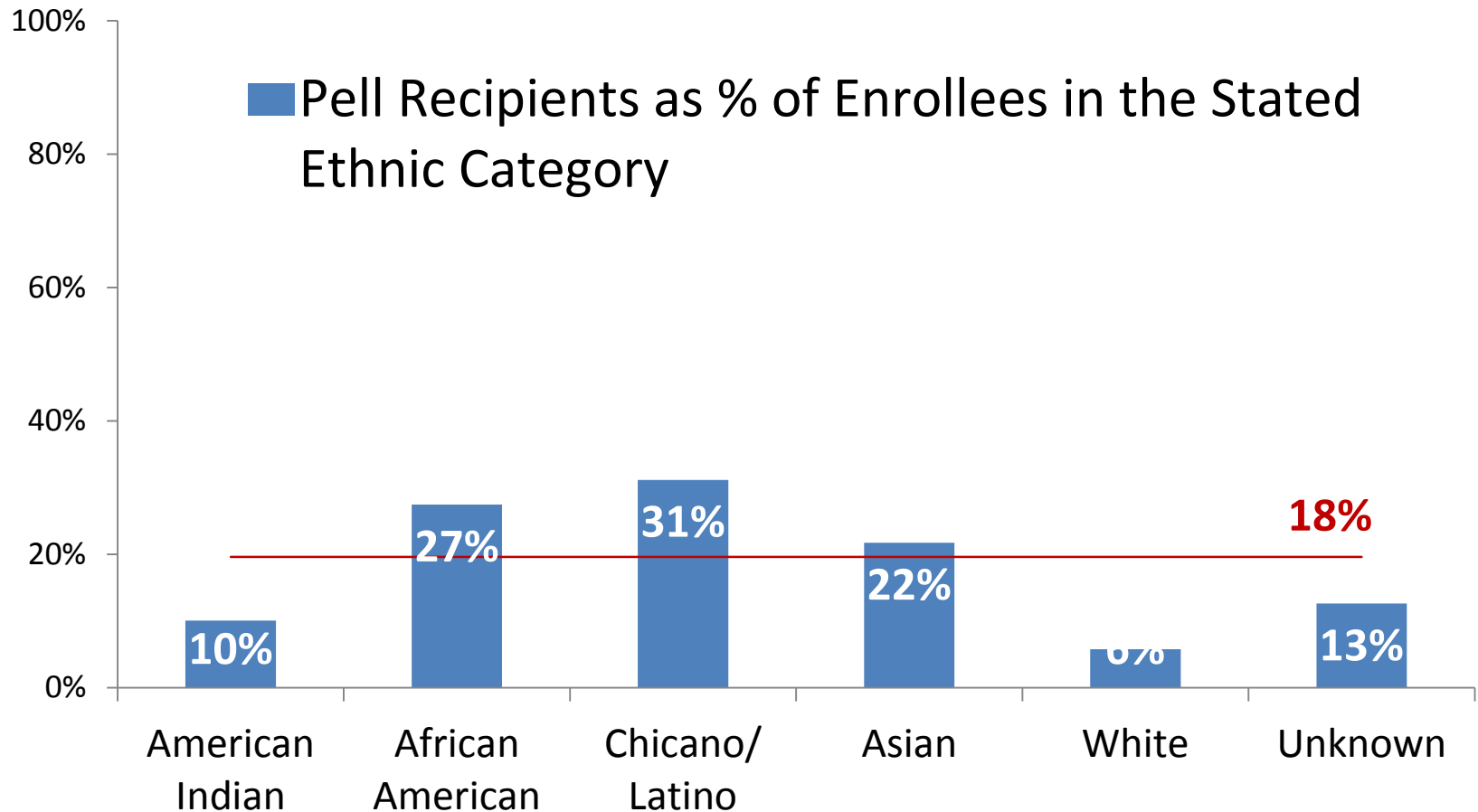
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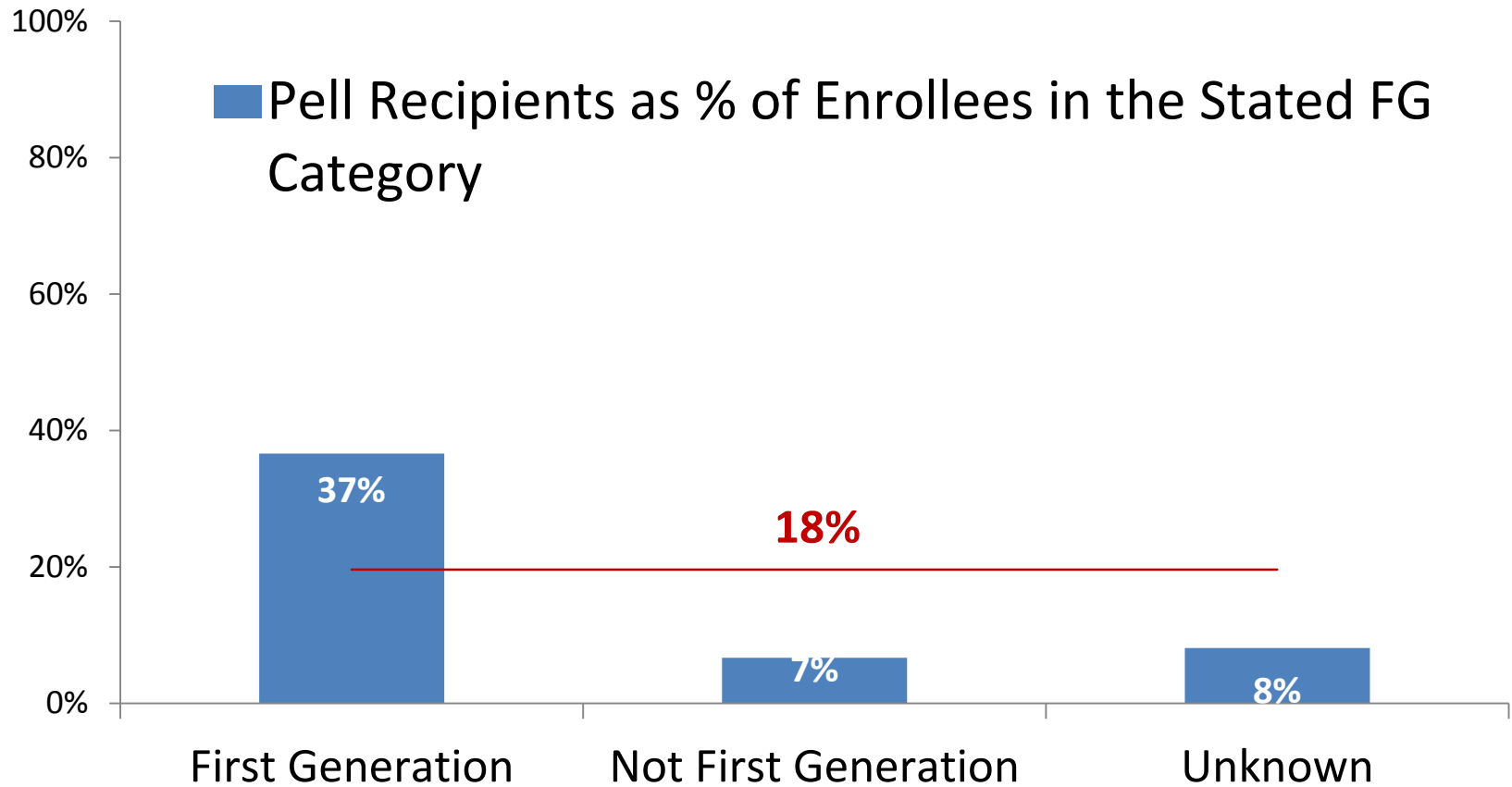
Fall 2006 4-Year Pell Students by GENDER



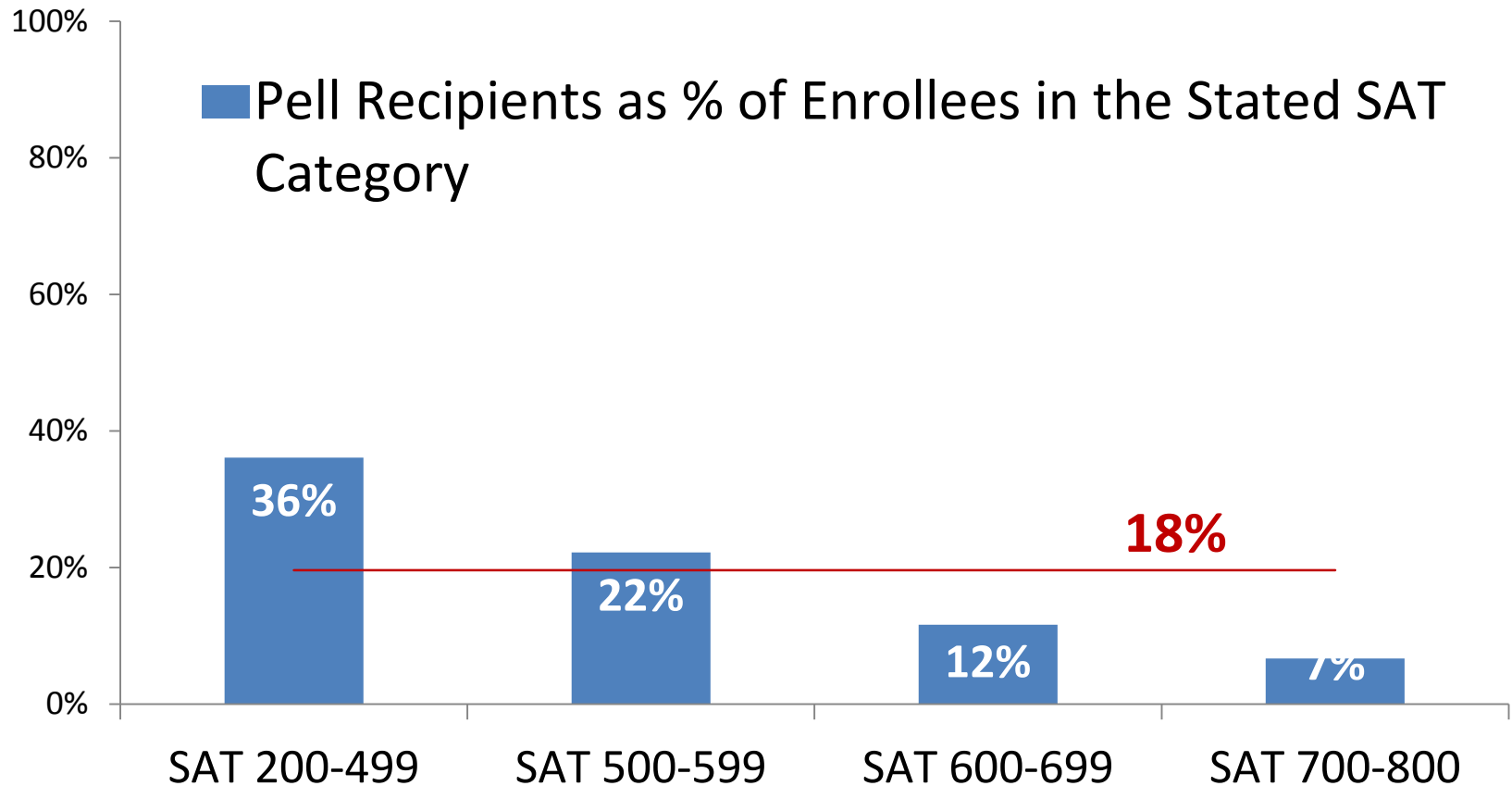
Fall 2006 4-Year Pell Students by RACE/ETHNICITY



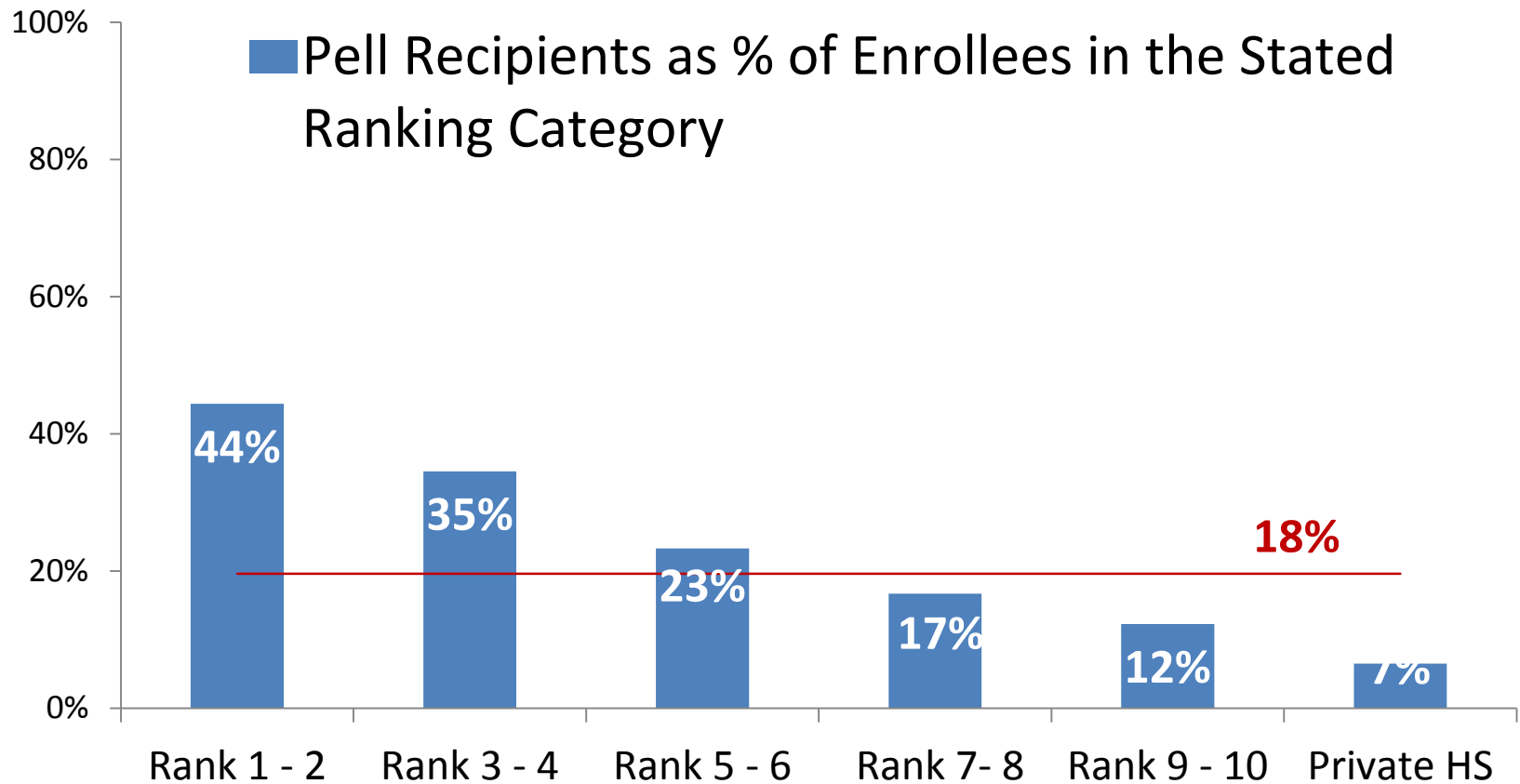
Fall 2006 4-Year Pell Students by FIRST-GEN STATUS



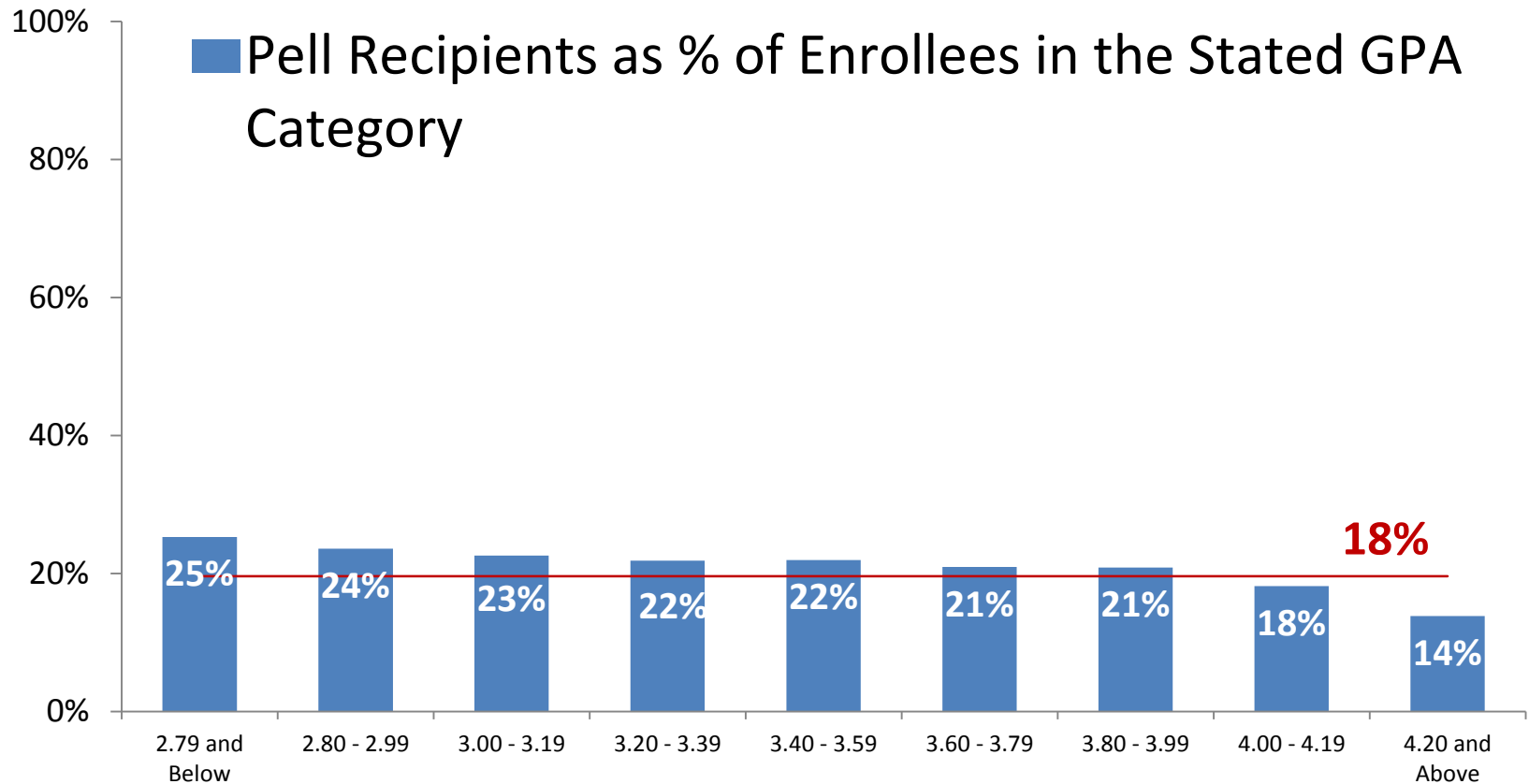
Fall 2006 4-Year Pell Students by SAT SCORE



Fall 2006 4-Year Pell Students by H.S. RANK



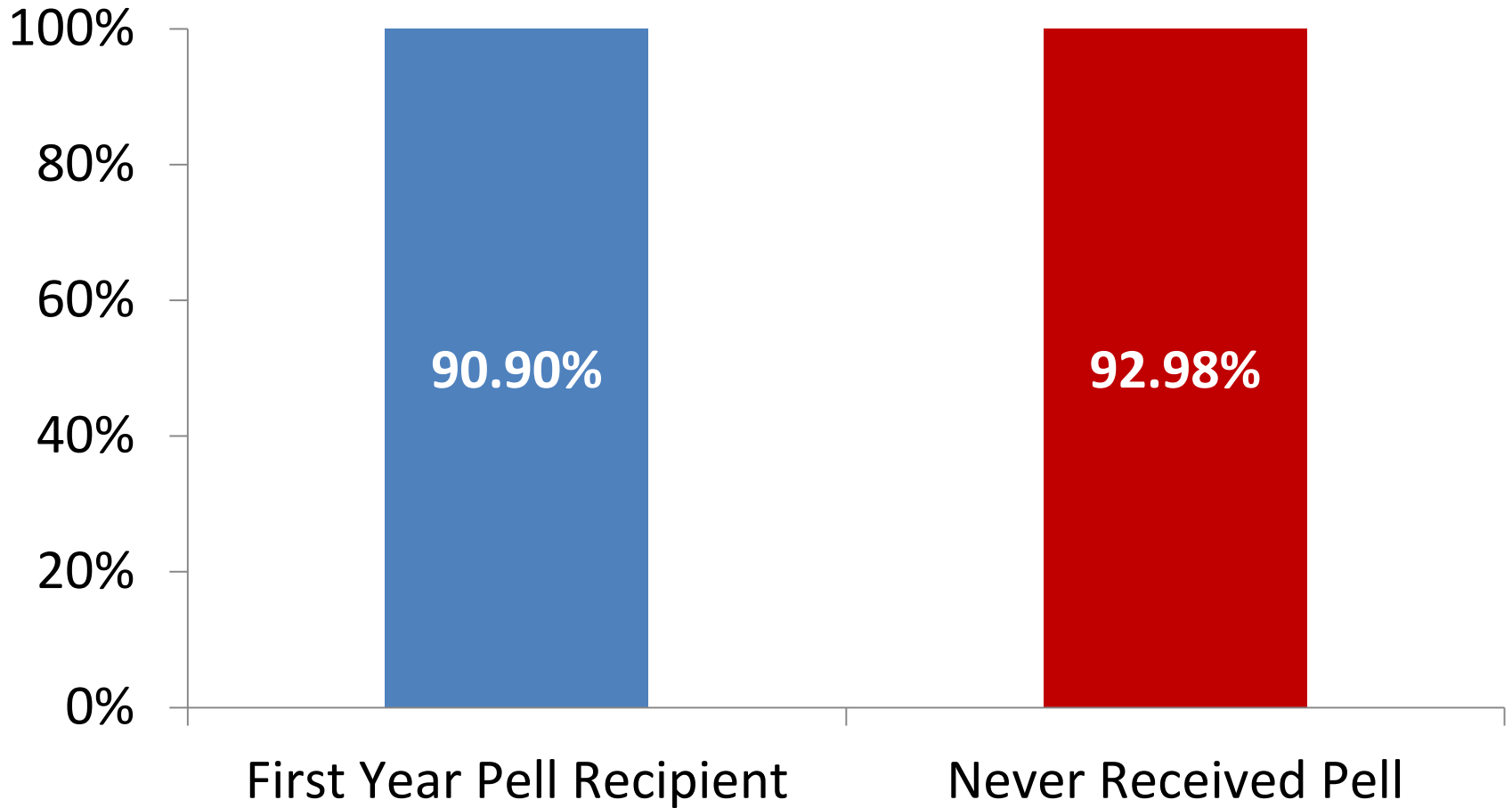
Fall 2006 4-Year Pell Students by H.S. G.P.A.



OUTCOMES...

- The Relationship between Pell Status and Student Characteristics
 - “Focus Students” Defined
 - Black or Hispanic
 - First Generation
 - Low GPA (3.4 or lower)
 - (1173 of the Fall Freshman Cohort (3.3%))

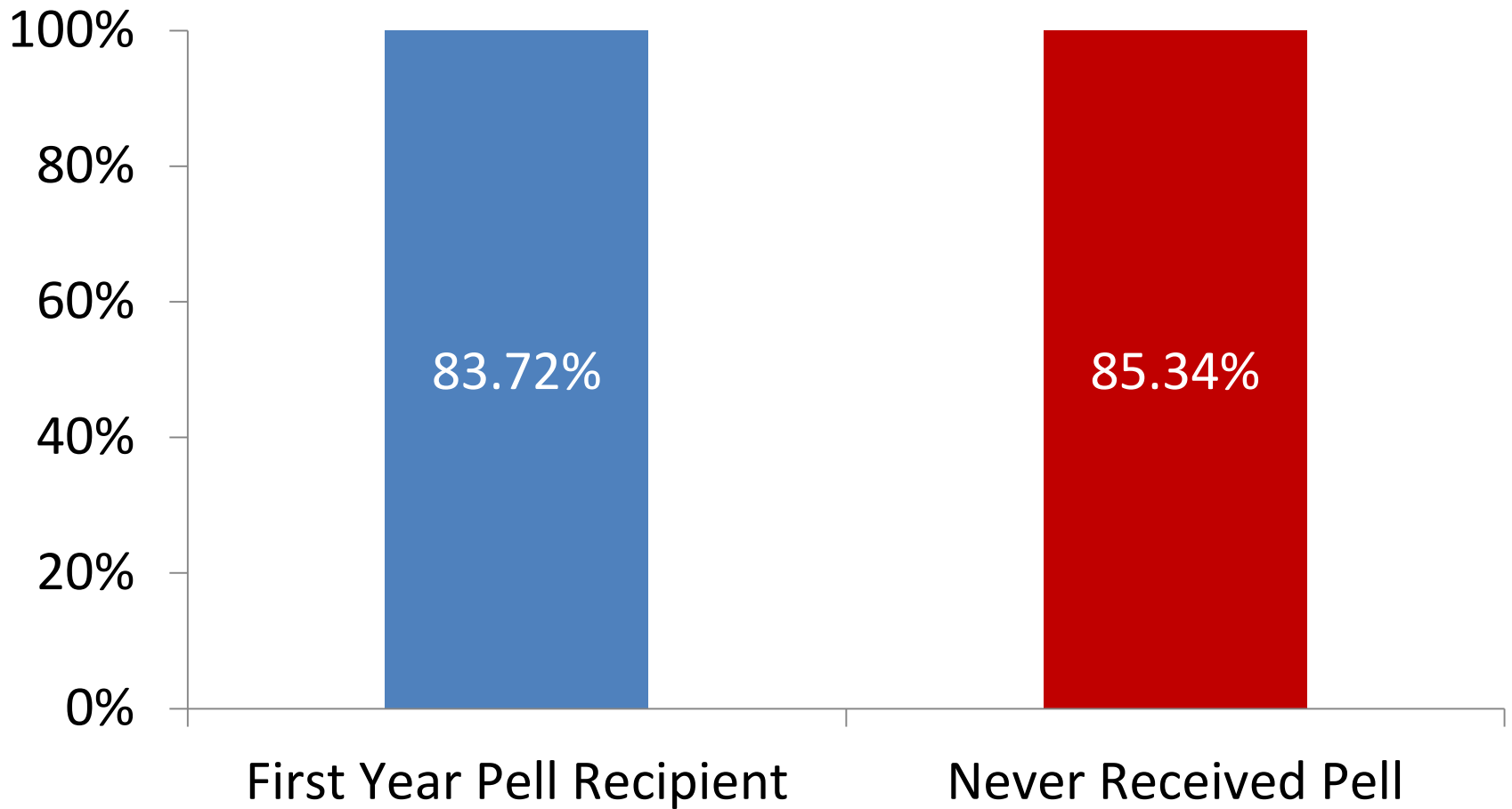
Outcomes: First Year Persistence



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| Logistic Regression Model on First Year Retention | | | | | | | | | | |
|---|------------|--------|------------|--------|------------|--------|------------|--------|------------|--------|
| | Model I | | Model II | | Model III | | Model IV | | Model V | |
| | Odds Ratio | p | Odds Ratio | p | Odds Ratio | p | Odds Ratio | p | Odds Ratio | p |
| Pell First Year | 0.754 | 0.0000 | 0.753 | 0.0000 | 1.013 | 0.8003 | 0.948 | 0.2737 | 1.095 | 0.0871 |
| Elite Campuses | | | 3.592 | 0.0000 | 1.907 | 0.0000 | 3.472 | 0.0000 | 1.986 | 0.0000 |
| HS GPA | | | | | 2.489 | 0.0000 | | | 2.367 | 0.0000 |
| Test Score | | | | | 1.002 | 0.0000 | | | 1.001 | 0.0000 |
| URM | | | | | | | 0.572 | 0.0000 | 0.746 | 0.0000 |
| First Generation | | | | | | | 0.821 | 0.0000 | 0.938 | 0.1561 |
| Focus Student | | | | | | | | | 0.815 | 0.0200 |

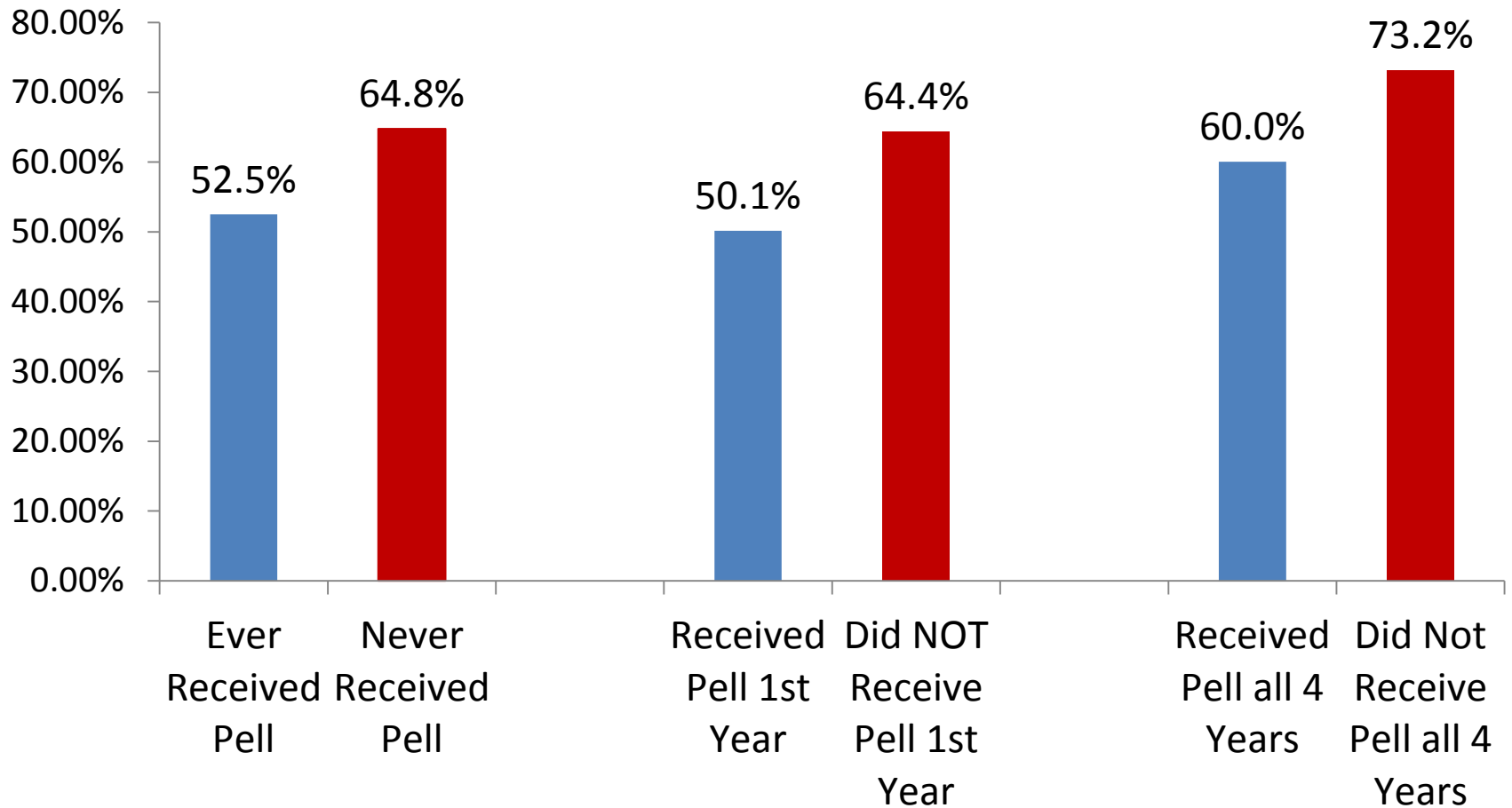
Outcomes: Second Year Persistence



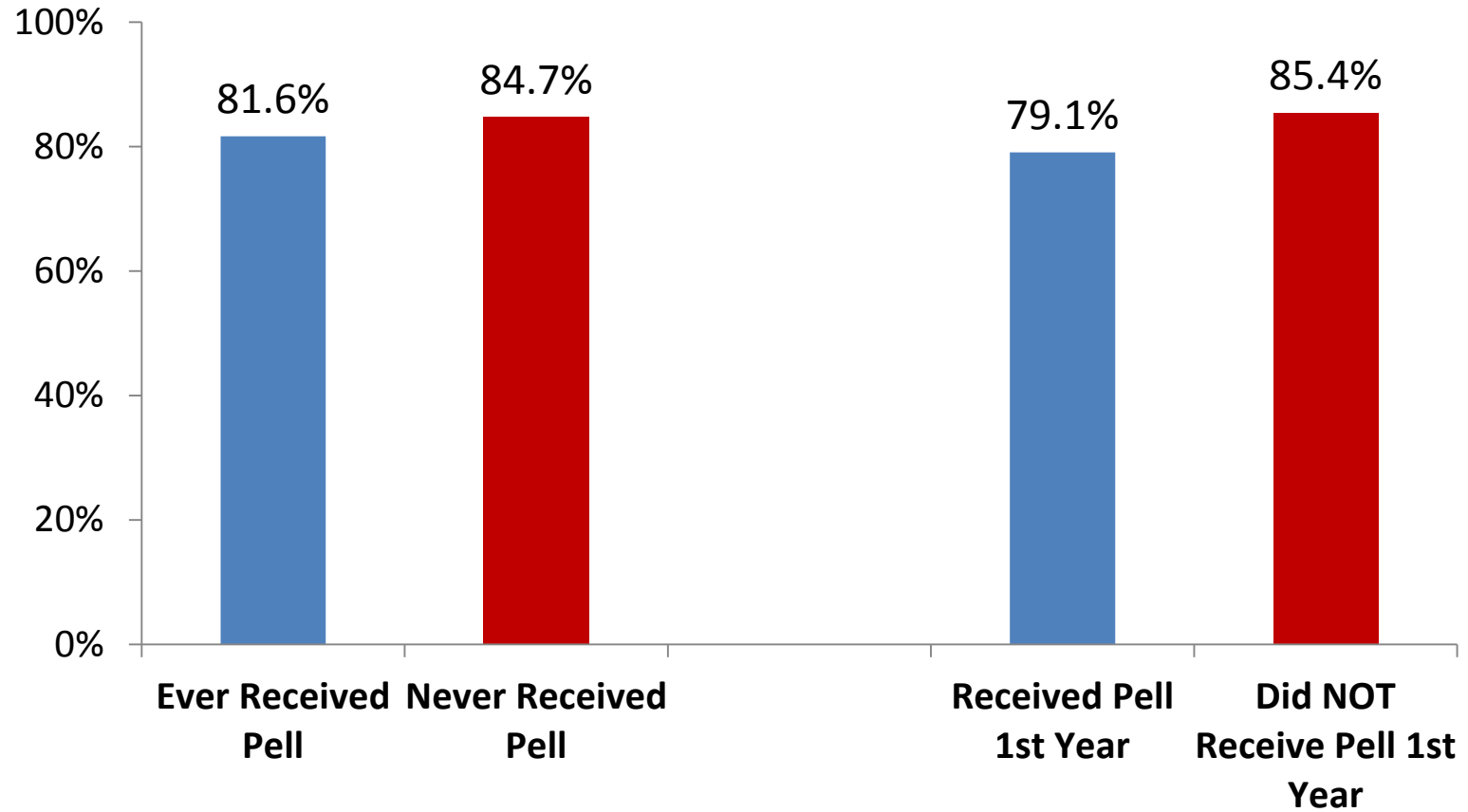
Outcomes: Second Year Persistence

| Logistic Regression Model on Second Year Retention | | | | | | | | | | |
|--|------------|--------|------------|--------|------------|--------|------------|--------|------------|--------|
| | Model I | | Model II | | Model III | | Model IV | | Model V | |
| | Odds Ratio | p | Odds Ratio | p | Odds Ratio | p | Odds Ratio | p | Odds Ratio | p |
| Pell First Year | 0.883 | 0.0002 | 0.882 | 0.0002 | 1.125 | 0.0018 | 1.006 | 0.8776 | 1.149 | 0.0006 |
| Elite Campuses | | | 2.770 | 0.0000 | 1.578 | 0.0000 | 2.712 | 0.0000 | 1.616 | 0.0000 |
| HS GPA | | | | | 2.348 | 0.0000 | | | 2.260 | 0.0000 |
| Test Score | | | | | 1.001 | 0.0000 | | | 1.001 | 0.0000 |
| URM | | | | | | | 0.640 | 0.0000 | 0.811 | 0.0000 |
| First Generation | | | | | | | 0.941 | 0.0395 | 1.041 | 0.2219 |
| Focus Group | | | | | | | | | 0.833 | 0.0109 |

Outcomes: 4 Year Graduation Rates



Outcomes: 6 Year Graduation Rates



Logistic Regression: Ever-had-Pell on 4-Year Graduation

| | Model I | | Model II | | Model III | | Model IV | | Model V | |
|------------------|------------|--------|------------|--------|------------|--------|------------|--------|------------|--------|
| | Odds Ratio | p | Odds Ratio | p | Odds Ratio | p | Odds Ratio | p | Odds Ratio | p |
| Ever had Pell | 0.577 | 0.0000 | 0.575 | 0.0000 | 0.687 | 0.0000 | 0.693 | 0.0000 | 0.739 | 0.0000 |
| Elite Campuses | | | 1.829 | 0.0000 | 1.032 | 0.3320 | 1.785 | 0.0000 | 0.0740 | 0.0257 |
| HS GPA | | | | | 2.683 | 0.0000 | | | 2.679 | 0.0000 |
| Test Score | | | | | 1.001 | 0.0000 | | | 1.001 | 0.0000 |
| URM | | | | | | | 0.574 | 0.0000 | 0.679 | 0.0000 |
| First Generation | | | | | | | 0.849 | 0.0000 | 0.904 | 0.0000 |
| Focus Group | | | | | | | | | 1.030 | 0.5981 |

Logistic Regression: First-Year-Pell on Four-Year Graduation

| | Model I | | Model II | | Model III | | Model IV | | Model V | |
|----------------------|------------|--------|------------|--------|------------|--------|------------|--------|------------|--------|
| | Odds Ratio | p | Odds Ratio | p | Odds Ratio | p | Odds Ratio | p | Odds Ratio | p |
| Pell First Year | 0.556 | 0.0000 | 0.552 | 0.0000 | 0.666 | 0.0000 | 0.669 | 0.0000 | 0.715 | 0.0000 |
| Elite Campuses | | | 1.844 | 0.0000 | 1.045 | 0.1801 | 1.798 | 0.0000 | 1.088 | 0.0112 |
| HS GPA | | | | | 2.655 | 0.0000 | | | 2.653 | 0.0000 |
| Test Score | | | | | 1.001 | 0.0000 | | | 1.001 | 0.0000 |
| URM First Generation | | | | | | | 0.572 | 0.0000 | 0.672 | 0.0000 |
| Focus Group | | | | | | | | | 1.039 | 0.5416 |

Logistic Regression: All-4-Years-Pell on Four-Year Graduation

| | Model I | | Model II | | Model III | | Model IV | | Model V | |
|------------------|------------|--------|------------|--------|------------|--------|------------|--------|------------|--------|
| | Odds Ratio | p | Odds Ratio | p | Odds Ratio | p | Odds Ratio | p | Odds Ratio | p |
| Pell All 4 Years | 0.462 | 0.0000 | 0.459 | 0.0000 | 0.512 | 0.0000 | 0.515 | 0.0000 | 0.533 | 0.0000 |
| Elite Campuses | | | 1.473 | 0.0000 | 0.994 | 0.6786 | 1.455 | 0.0000 | 1.017 | 0.5796 |
| HS GPA | | | | | 2.261 | 0.0000 | | | 2.281 | 0.0000 |
| Test Score | | | | | 1.000 | 0.0000 | | | 1.000 | 0.0000 |
| URM | | | | | | | 0.681 | 0.0000 | 0.730 | 0.0000 |
| First Generation | | | | | | | 0.947 | 0.0000 | 0.976 | 0.0000 |
| Focus Group | | | | | | | | | 1.094 | 0.0593 |

Findings

- Pell and non-Pell students have similar rates of first and second year persistence
- When controlling for other factors, Pell students persist slightly better than non-Pell students
- Pell students have significantly lower 4 year graduation rates, even when controlling for student characteristics.

Further Questions

- What happens between 2 years and graduation?
- What about 6-year Graduation?
- How are CSU and CCC Different?
- What are the effects of other types of aid?
- How will the new six-year eligibility limit effect these results?

Questions?

- THANK YOU!